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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,988	08/22/2003	Darius D. Gaskins	CNTR.2209	1141

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EXAMINER

CONNOLLY, MARK A

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/646,988	GASKINS ET AL.	
	Examiner	Art Unit	
	Mark Connolly	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/22/03, 4/7/04, 9/3/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-22 have been presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 6-16 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Mittal et al [Mittal] US Pat No 5719800.

4. Referring to claim 1, Mittal teaches the apparatus including:

- a. a plurality of functional units each including a corresponding plurality of activity outputs, for indicating when a respective functional unit is enabled [figs. 1 and 5].
- b. utilization assessment logic, coupled to said plurality of activity outputs, for assessing activity thereof to determine a current total power consumption value for the microprocessor [col. 5 lines 30-42 and col. 11 lines 54-58].
- c. power control logic, coupled to said utilization assessment logic, for comparing said current total power consumption value with a threshold power value included in a specified power profile [col. 5 lines 30-42 and col. 11 lines 54-58].
- d. a power consumption controller, coupled to said power management logic and said plurality of functional units, for engaging one of a plurality of power reduction modes if said current total power consumption value exceeds said threshold power value [abstract and col. 5 lines 25-29].

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5. Referring to claim 2, Mittal teaches not using the cache but rather access external memory instead [col. 7 lines 43-50, col. 10 lines 52-59 and col. 11 lines 54-58]. Not accessing a cache is interpreted as disabling the usage of the cache.

6. Referring to claim 6, Mittal teaches reducing the rate of instructions [col. 3 lines 14-17]. It is interpreted that the instructions would be issued to an execute unit.

7. Referring to claims 7 and 8, Mittal teaches reducing a voltage and/or clock frequency [col. 5 lines 1-4].

8. Referring to claim 9, this is rejected on the same basis as set forth hereinabove. Furthermore, Mittal teaches assessing the activity of individual functional units [fig. 5 and col. 11 lines 38-39 and 54-58].

9. Referring to claim 10, Mittal teaches a control bus coupled between power management logic and power consumption controller [109 fig. 1A and 507, 508 fig. 5].

10. Referring to claims 11 and 12, Mittal teaches sending commands over a control bus to instruct power consumption controller to control the power consumption of either an individual functional unit or all functional units [col. 11 lines 21-32 and col. 12 lines 28-41].

11. Referring to claim 13, this is rejected on the same basis as set forth hereinabove.

12. Referring to claim 14, this is rejected on the same basis as set forth hereinabove. Mittal teaches the apparatus and therefore teaches the method performed by the apparatus. In addition, Mittal further teaches prescribing a power profile to the device [col. 5 lines 43-61].

13. Referring to claims 15-16 and 20-22, these are rejected on the same basis as set forth hereinabove.

Claim Rejections - 35 USC § 103

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14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 2-6 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mittal.

16. Referring to claims 2-6, applicant(s) numerous definitions of a "functional unit" (claims 2-6) is construed to be an admission that the criticality does not reside in the type of "functional unit" utilized and hence obvious variations of one another. Mittal explicitly teaches a functional unit as being a functional unit as being a cache as shown above in regards to claim 2.

Furthermore, Mittal teaches that branch predictors and floating point units also consume substantial amounts of power just like cache memories [col. 2 lines 25-31 and col. 3 lines 5-8].

17. Referring to claims 17-19, these are rejected on the same basis as set forth hereinabove.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

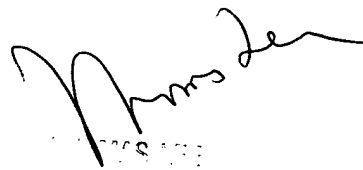
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Connolly
Examiner
Art Unit 2115

mc
January 30, 2006



Mark Connolly
Examiner
Art Unit 2115